

REMARKS

Claims 1-8 and 11-20 are currently pending in this application.

Claims 1, 2, 6, 11, 12, 17, 18, and 19 have been amended. No further claims are canceled, and claim 20 is newly added.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejects claims 1-4 and 11-19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,359,650 issued to Murakami (hereinafter "Murakami") in view of U.S. Patent No. 5,499,074 issued to Ohsawa et al. (hereinafter "Ohsawa"); rejects claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Murakami, in view of Ohsawa and in further view of U.S. Patent No. 6,937,284 issued to Singh et al. (hereinafter "Singh"); and rejects claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Murakami, in view of Ohsawa and in view of U.S. Patent No. 6,545,715 issued to Na (hereinafter "Na").

Independent claims 1, 11, and 17, as amended, variously recite, in part, that:

... wherein the focus state judging means determines a focus state value and compares the focus state value to a first focus state threshold and a second focus state threshold, the focus state judged to be in focus if the focus state value is greater than or equal to the first focus state threshold, the focus state judged to require adjustment to become in focus if the focus state value is between the first and second thresholds, and the focus state judged to be incompetent to indicate focus if the focus state value is below the second focus state threshold.

The applied art of record does not disclose this feature. Murakami discloses, in contrast, that "the focus evaluation values on the distance measurement areas A1 to A4 upon stopping the focus lens are compared with the stored peak values Ea1 to Ea4 of these areas, and if the difference between the two values for each area is equal to or smaller than a predetermined threshold value, it is determined that the focus evaluation value of the area of interest falls within the object depth." (Murakami, col. 7, lines 59-65.) The peak values appear to be initial maximum sharpness values ascertained for different areas (A1 to A4) of a field of view during a hill-climb type focusing procedure. When a focus lens is tilted with respect to an object for imaging, different areas of the field of view are in varying states of focus. The different states of focus are graphically displayed to a user. (See, e.g., Fig. 5.) When the focus lens is stopped

(corresponding to a central portion A0 being in focus), the other areas may be out of focus, and the user is graphically notified. As the camera is moved to remedy the variations in focus for different areas, the focus values of the different areas are monitored and compared with the original peak values Ea1 to Ea4 which do not change during the corrective moving of the camera. As the differences in focus values and peak focus values decrease, the differences may be compared to a threshold *below* which the area is deemed to be “in focus”.

In-focus determination resulting from a difference being *lower* than a predetermined threshold is, of course, different from the claimed in-focus judgment when a focus state value is *greater than* a first focus state threshold. Thus, the device of the present claims requires fewer calculations and may operate more efficiently.

Murakami requires a difference calculation and a comparison of that difference calculation with a predetermined threshold. Clearly, the comparison of a difference between a current focus evaluation value and a stored peak value for a particular area of an image against a predetermined threshold value is different from comparison of a focus state value with a first focus state threshold. However, even if Murakami disclosed comparison of a focus state value to a first focus state threshold (not conceded), Murakami does not further disclose comparison against a *second* focus state threshold.

Ohsawa and the other cited references fail to remedy the deficiencies of Murakami. In short, none of the applied references, alone or in combination, discloses use of two threshold values and reliance on the resulting three ranges of focus values for determining action following focus-state judgment. Accordingly, Applicants believe that independent claims 1, 11, and 17, as amended, recite subject matter not disclosed by the prior art of record. Claims 3-8, 13, 15, and 19, which depend from claim 1 or 11, are believed to be in condition for allowance for at least the same reasons as their base claims. Applicants respectfully request withdrawal of the rejections and reconsideration of the claims.

Claims 2, 12, and 18 variously recite a “focus storage means [or section] that stores temporal progress of the focus states of images obtained by the focus judging means [or section] with temporal progress of the captured images.” The Office Action asserts that a focus state

storage means is discussed regarding claim 1 (OA, page 4, line 19.) However, no discussion or anticipation of this feature by the applied art of record appears to be presented in the Office Action. Moreover, this feature does not appear to be present in the applied references either explicitly or implicitly.

Accordingly, claims 2, 12, and 18, and claims depending therefrom, are believed to be in condition for allowance. Applicants respectfully request withdrawal of the rejection and reconsideration of the claims.

New Claim

Claim 20 has been added to separate and further clarify the subject matter of now-amended claim 6. The Singh reference does not disclose a focus state display means which emits, via a sounding means, a voice that instructs and informs a user regarding the focus state. Consideration of claim 20 is earnestly solicited.

CONCLUSION

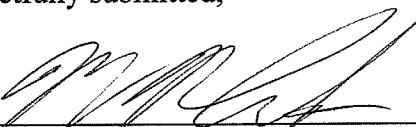
In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact James C. Larsen, Reg. No. 58,565, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 
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